

Comparing Fractions by finding common denominators:

When you want to compare two or more fractions with different denominators, first of all make their denominators same by finding LCM of the denominators. Once the denominators are same then just compare the numerators to compare the fractions.

For example; compare:

$$\frac{3}{4} \text{ and } \frac{5}{6}$$

Solution: Step 1

To compare two fractions, their denominators should be same. For that find LCM of both denominators, which are 4 and 6.

$$\begin{array}{l|l} 4 & 4, 8, \textcircled{12}, 16 \\ \hline 6 & 6, \textcircled{12} \\ \hline \text{LCM} & = 12 \end{array}$$

Step 2

Now change both of the fractions into two equivalent fractions with denominator 12, as shown below:

$$\frac{3 \times 3}{4 \times 3} = \frac{9}{12}$$

$$\frac{5 \times 2}{6 \times 2} = \frac{10}{12}$$

Note: Multiply both the numerator and denominator with the same number.

Step 3

Now compare the new equivalent fractions:

Since;

$$\frac{9}{12} < \frac{10}{12}$$

Therefore;

$$\frac{3}{4} < \frac{5}{6}$$

1. $\frac{3}{5}$ and $\frac{2}{3}$

2. $\frac{7}{8}$ and $\frac{5}{6}$

3. $\frac{3}{7}$ and $\frac{4}{5}$

4. $\frac{5}{8}$ and $\frac{4}{7}$